

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In re application of: Goodman et al.

Group Art Unit: 1644

Serial No. 08/971,172

Examiner: S. Turner

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Attorney Docket No. B98-006-2

For: *Robo: A Novel Family of Polypeptides
and Nucleic Acids*

SEP 14 2000

TECH CENTER 1600/2900

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T-217

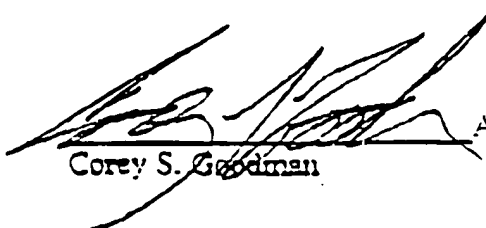
SUPPLEMENTAL DECLARATION UNDER 37 CFR 1.131

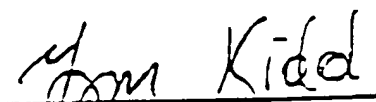
Assistant Commissioner for Patents
Washington D.C. 20231

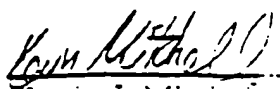
Dear Commissioner:


1. We are coinventors of the subject patent application.
2. Attached is a photocopy of a 5 page alignment including our U88183 sequence, which is identical to SEQ ID NO:6 of the subject patent application. We determined this U88183 sequence and prepared the alignment prior to April 1997. This work was performed in the United States.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.


Corey S. Goodman Aug 30, 2000


Thomas Kidd Aug 30, 2000


Kevin J. Mitchell Aug 30, 2000


Guy Teaz Aug 30, 2000

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M . . . . . Consensus #1
      10      20      30
1  M Y - - - - - Y L G F Y H T H T H T Y I N F D K I P N U88183 composite pep
1  M F N R K T L L C T I L L V L Q A V I R S F C E - - - - - D W-Robo pep

      40      50      60
      A S N L A P V I I E H P I D V V V S R G S P A T L N C G A K Consensus #1
25  A S N L A P V I I E H P I D V V V S R G S P A T L N C G A K U88183 composite pep
26  A S N L A P V I I E H P I D V V V S R G S P A T L N C G A K W-Robo pep

      70      80      90
      P S T A K I T W Y K D G Q P V I T N K E Q V N S H R I V L D Consensus #1
55  P S T A K I T W Y K D G Q P V I T N K E Q V N S H R I V L D U88183 composite pep
56  P S T A K I T W Y K D G Q P V I T N K E Q V N S H R I V L D W-Robo pep

     100     110     120
      T G S L F L L K V N S G K N G K D S D A G A Y Y C V A S N E Consensus #1
85  T G S L F L L K V N S G K N G K D S D A G A Y Y C V A S N E U88183 composite pep
86  T G S L F L L K V N S G K N G K D S D A G A Y Y C V A S N E W-Robo pep

     130     140     150
      H G E V K S N E G S L K L A M L R E D F R V R P R T V Q A L Consensus #1
115 H G E V K S N E G S L K L A M L R E D F R V R P R T V Q A L U88183 composite pep
116 H G E V K S N E G S L K L A M L R E D F R V R P R T V Q A L W-Robo pep

     160     170     180
      G G E M A V L E C S P P R G F P E P V V S W R K D D K E L R Consensus #1
145 G G E M A V L E C S P P R G F P E P V V S W R K D D K E L R U88183 composite pep
146 G G E M A V L E C S P P R G F P E P V V S W R K D D K E L R W-Robo pep

     190     200     210
      I Q D M P R Y T L H S D G N L I I D P V D R S D S G T Y Q C Consensus #1
175 I Q D M P R Y T L H S D G N L I I D P V D R S D S G T Y Q C U88183 composite pep
176 I Q D M P R Y T L H S D G N L I I D P V D R S D S G T Y Q C W-Robo pep

     220     230     240
      V A N N M V G E R V S N P A R L S V F E K P K F E Q E P K D Consensus #1
205 V A N N M V G E R V S N P A R L S V F E K P K F E Q E P K D U88183 composite pep
206 V A N N M V G E R V S N P A R L S V F E K P K F E Q E P K D W-Robo pep

     250     260     270
      M T V D V G A A V L F D C R V T G D P Q P Q I T W K R K N E Consensus #1
235 M T V D V G A A V L F D C R V T G D P Q P Q I T W K R K N E U88183 composite pep
236 M T V D V G A A V L F D C R V T G D P Q P Q I T W K R K N E W-Robo pep
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P M P V T R A Y I A K D N R G L R I E R V Q P S D E G E Y V Consensus #1
      280          290          300
265 P M P V T R A Y I A K D N R G L R I E R V Q P S D E G E Y V U88183 composite pep
266 P M P V T R A Y I A K D N R G L R I E R V Q P S D E G E Y V W-Robo pep

C Y A R N P A G T L E A S A H L R V Q A P P S F Q T K P A D Consensus #1
      310          320          330
295 C Y A R N P A G T L E A S A H L R V Q A P P S F Q T K P A D U88183 composite pep
296 C Y A R N P A G T L E A S A H L R V Q A P P S F Q T K P A D W-Robo pep

Q S V P A G G T A T F E C T L V G Q P S P A Y F W S K E G Q Consensus #1
      340          350          360
325 Q S V P A G G T A T F E C T L V G Q P S P A Y F W S K E G Q U88183 composite pep
326 Q S V P A G G T A T F E C T L V G Q P S P A Y F W S K E G Q W-Robo pep

Q D L L F P S Y V S A D G R T K V S P T G T L T I E E V R Q Consensus #1
      370          380          390
355 Q D L L F P S Y V S A D G R T K V S P T G T L T I E E V R Q U88183 composite pep
356 Q D L L F P S Y V S A D G R T K V S P T G T L T I E E V R Q W-Robo pep

V D E G A Y V C A G M N S A G S S L S K A A L K . T . . . . Consensus #1
      400          410          420
385 V D E G A Y V C A G M N S A G S S L S K A A L K A T F E T K U88183 composite pep
386 V D E G A Y V C A G M N S A G S S L S K A A L K V T - - - - W-Robo pep

. . . . . A V T Consensus #1
      430          440          450
415 G R V Q K K K S K M G K Q K Q K N V Q S I I K Y L I S A V T U88183 composite pep
412 - - - - - T K A V T W-Robo pep

G N T P A K P P P T I E H G H Q N Q T L M V G S S A I L P C Consensus #1
      460          470          480
445 G N T P A K P P P T I E H G H Q N Q T L M V G S S A I L P C U88183 composite pep
417 G N T P A K P P P T I E H G H Q N Q T L M V G S S A I L P C W-Robo pep

Q A S G K P T P G I S W L R D G L P I D I T D S R I S Q H S Consensus #1
      490          500          510
475 Q A S G K P T P G I S W L R D G L P I D I T D S R I S Q H S U88183 composite pep
447 Q A S G K P T P G I S W L R D G L P I D I T D S R I S Q H S W-Robo pep

T G S L H I A D L K K P D T G V Y T C I A K N E D G E S T W Consensus #1
      520          530          540
505 T G S L H I A D L K K P D T G V Y T C I A K N E D G E S T W U88183 composite pep
477 T G S L H I A D L K K P D T G V Y T C I A K N E D G E S T W W-Robo pep

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S A S L T V E D H T S N A Q F V R M P D P S N F P S S P T Q Consensus #1
550 560 570
535 S A S L T V E D H T S N A Q F V R M P D P S N F P S S P T Q U88183 composite pep
507 S A S L T V E D H T S N A Q F V R M P D P S N F P S S P T Q W-Robo pep

P I I V N V T D T E V E L H W N A P S T S G A G P I T G Y I Consensus #1
580 590 600
565 P I I V N V T D T E V E L H W N A P S T S G A G P I T G Y I U88183 composite pep
537 P I I V N V T D T E V E L H W N A P S T S G A G P I T G Y I W-Robo pep

I Q Y Y S P D L G Q T W F N I P D Y V A S T E Y R I K G L K Consensus #1
610 620 630
595 I Q Y Y S P D L G Q T W F N I P D Y V A S T E Y R I K G L K U88183 composite pep
567 I Q Y Y S P D L G Q T W F N I P D Y V A S T E Y R I K G L K W-Robo pep

P S H S Y M F V I R A E N E K G I G T P S V S S A L V T T S Consensus #1
640 650 660
625 P S H S Y M F V I R A E N E K G I G T P S V S S A L V T T S U88183 composite pep
597 P S H S Y M F V I R A E N E K G I G T P S V S S A L V T T S W-Robo pep

K P A A Q V A L S D K N K M D M A I A E K R L T S E Q L I K Consensus #1
670 680 690
655 K P A A Q V A L S D K N K M D M A I A E K R L T S E Q L I K U88183 composite pep
627 K P A A Q V A L S D K N K M D M A I A E K R L T S E Q L I K W-Robo pep

L E E V K T I N S T A V R L F W K K R K L E E L I D G Y Y I Consensus #1
700 710 720
685 L E E V K T I N S T A V R L F W K K R K L E E L I D G Y Y I U88183 composite pep
657 L E E V K T I N S T A V R L F W K K R K L E E L I D G Y Y I W-Robo pep

K W R G P P R T N D N Q Y V N V T S P S T E N Y V V S N L M Consensus #1
730 740 750
715 K W R G P P R T N D N Q Y V N V T S P S T E N Y V V S N L M U88183 composite pep
687 K W R G P P R T N D N Q Y V N V T S P S T E N Y V V S N L M W-Robo pep

P F T N Y E F F V I P Y H S G V H S I H G A P S N S M D V L Consensus #1
760 770 780
745 P F T N Y E F F V I P Y H S G V H S I H G A P S N S M D V L U88183 composite pep
717 P F T N Y E F F V I P Y H S G V H S I H G A P S N S M D V L W-Robo pep

T A E A P P S L P P E D V R I R M L N L T T L R I S W K A P Consensus #1
790 800 810
775 T A E A P P S L P P E D V R I R M L N L T T L R I S W K A P U88183 composite pep
747 T A E A P P S L P P E D V R I R M L N L T T L R I S W K A P W-Robo pep

	K A D G I N G I L K G F Q I V I V G Q A P N N N R N I T T N	Consensus #1
	820 830 840	
805	K A D G I N G I L K G F Q I V I V G Q A P N N N R N I T T N	U88183 composite pep
777	K A D G I N G I L K G F Q I V I V G Q A P N N N R N I T T N	W-Robo pep
	E R A A S V T L F H L V T G M T Y K I R V A A R S N G G V G	Consensus #1
	850 860 870	
835	E R A A S V T L F H L V T G M T Y K I R V A A R S N G G V G	U88183 composite pep
807	E R A A S V T L F H L V T G M T Y K I R V A A R S N G G V G	W-Robo pep
	V S H G T S E V I M N Q D T L E K H L A A Q Q E N E S F L Y	Consensus #1
	880 890 900	
865	V S H G T S E V I M N Q D T L E K H L A A Q Q E N E S F L Y	U88183 composite pep
837	V S H G T S E V I M N Q D T L E K H L A A Q Q E N E S F L Y	W-Robo pep
	G L I N K S H V P V I V I V A I L I I F V V I I I A Y C Y W	Consensus #1
	910 920 930	
895	G L I N K S H V P V I V I V A I L I I F V V I I I A Y C Y W	U88183 composite pep
867	G L I N K S H V P V I V I V A I L I I F V V I I I A Y C Y W	W-Robo pep
	R N S R N S D G K D R S F I K I N D G S V H M A S N N L W D	Consensus #1
	940 950 960	
925	R N S R N S D G K D R S F I K I N D G S V H M A S N N L W D	U88183 composite pep
897	R N S R N S D G K D R S F I K I N D G S V H M A S N N L W D	W-Robo pep
	V A Q N P N Q N P M Y N T A G R M T M N N R N G Q A L Y S L	Consensus #1
	970 980 990	
955	V A Q N P N Q N P M Y N T A G R M T M N N R N G Q A L Y S L	U88183 composite pep
927	V A Q N P N Q N P M Y N T A G R M T M N N R N G Q A L Y S L	W-Robo pep
	T P N A Q D F F N N C D D Y S G T M H R P G S E H H Y H Y A	Consensus #1
	1000 1010 1020	
985	T P N A Q D F F N N C D D Y S G T M H R P G S E H H Y H Y A	U88183 composite pep
957	T P N A Q D F F N N C D D Y S G T M H R P G S E H H Y H Y A	W-Robo pep
	Q L T G G P G N A M S T F Y G N Q Y H D D P S P Y A T T T L	Consensus #1
	1030 1040 1050	
1015	Q L T G G P G N A M S T F Y G N Q Y H D D P S P Y A T T T L	U88183 composite pep
987	Q L T G G P G N A M S T F Y G N Q Y H D D P S P Y A T T T L	W-Robo pep
	V L S N Q Q P A W L N D K M L R A P A M P T N P V P P E P P	Consensus #1
	1060 1070 1080	
1045	V L S N Q Q P A W L N D K M L R A P A M P T N P V P P E P P	U88183 composite pep
1017	V L S N Q Q P A W L N D K M L R A P A M P T N P V P P E P P	W-Robo pep

Alignment Report of Untitled, using Clustal method with PAM250 residue weight table.

		1090	1100	1110	Consensus #1
	ARYADHTAGRRSRSSRASDGRGTLNGGLHH				
1075	ARYADHTAGRRSRSSRASDGRGTLNGGLHH				U88183 composite pep
1047	ARYADHTAGRRSRSSRASDGRGTLNGGLHH				W-Robo pep
	RTSGSQRS DSPPH TDVSYVOLHSSDGTGSS	1120	1130	1140	Consensus #1
1105	RTSGSQRS DSPPH TDVSYVOLHSSDGTGSS				U88183 composite pep
1077	RTSGSQRS DSPPH TDVSYVOLHSSDGTGSS				W-Robo pep
	KERTGERRTPPNKTLMDFIPPPPSNPPPPG	1150	1160	1170	Consensus #1
1135	KERTGERRTPPNKTLMDFIPPPPSNPPPPG				U88183 composite pep
1107	KERTGERRTPPNKTLMDFIPPPPSNPPPPG				W-Robo pep
	GHVYD TATRRQLNRGSTPREDTYDSV	1180	1190	1200	Consensus #1
1165	GHVYD - - - - TATRRQLNRGSTPREDTYDSV				U88183 composite pep
1137	GHVYD D I F Q TATRRQLNRGSTPREDTYDSV				W-Robo pep
	SDGAFARVDVNARPTSRNRNLGGRPLKGKR	1210	1220	1230	Consensus #1
1191	SDGAFARVDVNARPTSRNRNLGGRPLKGKR				U88183 composite pep
1167	SDGAFARVDVNARPTSRNRNLGGRPLKGKR				W-Robo pep
	DDDSQRSSLMDDDDGGSSSEADGENSEGDVP	1240	1250	1260	Consensus #1
1221	DDDSQRSSLMDDDDGGSSSEADGENSEGDVP				U88183 composite pep
1197	DDDSQRSSLMDDDDGGSSSEADGENSEGDVP				W-Robo pep
	RGGVRKAVPRMGISASTLAHSCYGTNGTAQ	1270	1280	1290	Consensus #1
1251	RGGVRKAVPRMGISASTLAHSCYGTNGTAQ				U88183 composite pep
1227	RGGVRKAVPRMGISASTLAHSCYGTNGTAQ				W-Robo pep
	RFRSIPRNNGIIVTQEQ . .	1300			Consensus #1
1281	RFRSIPRNNGIIVTQEQ - T				U88183 composite pep
1257	RFRSIPRNNGIIVTQEQ T .				W-Robo pep

Consensus 'Consensus #1': When all match the residue of the Consensus show the residue of the Consensus, otherwise show '.'.

Decoration 'Decoration #1': Shade (with solid black) residues that match the consensus named 'Consensus #1' exactly.